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## **Early Lab scientists had questions, Plastic Man gave them answers**

**By Madeline Whitacre, National Security Research Center archivist-historian**

He was a willing subject in countless scientific experiments, a superstar of health physics, as well as a favorite photo prop -- and not just around Halloween time.

He was Plastic Man.

Beginning in the mid-1950s, the Lab (then called Los Alamos Scientific Laboratory) often relied on several life-sized synthetic test subjects to avoid experimenting on people.

In the early days of the Laboratory, not much was known about how different radioisotopes interacted with the human body and how much it absorbed from different radiation sources.

Answering queries like these is where Plastic Man came in.

For example, during the 1950s and 1960s, the Lab was tasked with developing nuclear rockets for space exploration under the Rover Program. One of the concerns was how astronauts might be affected when exposed to radiation from these rocket engines. So, the Lab's health group set up an experiment in which Plastic Man was placed in close proximity to an experimental Rover nuclear rocket engine.

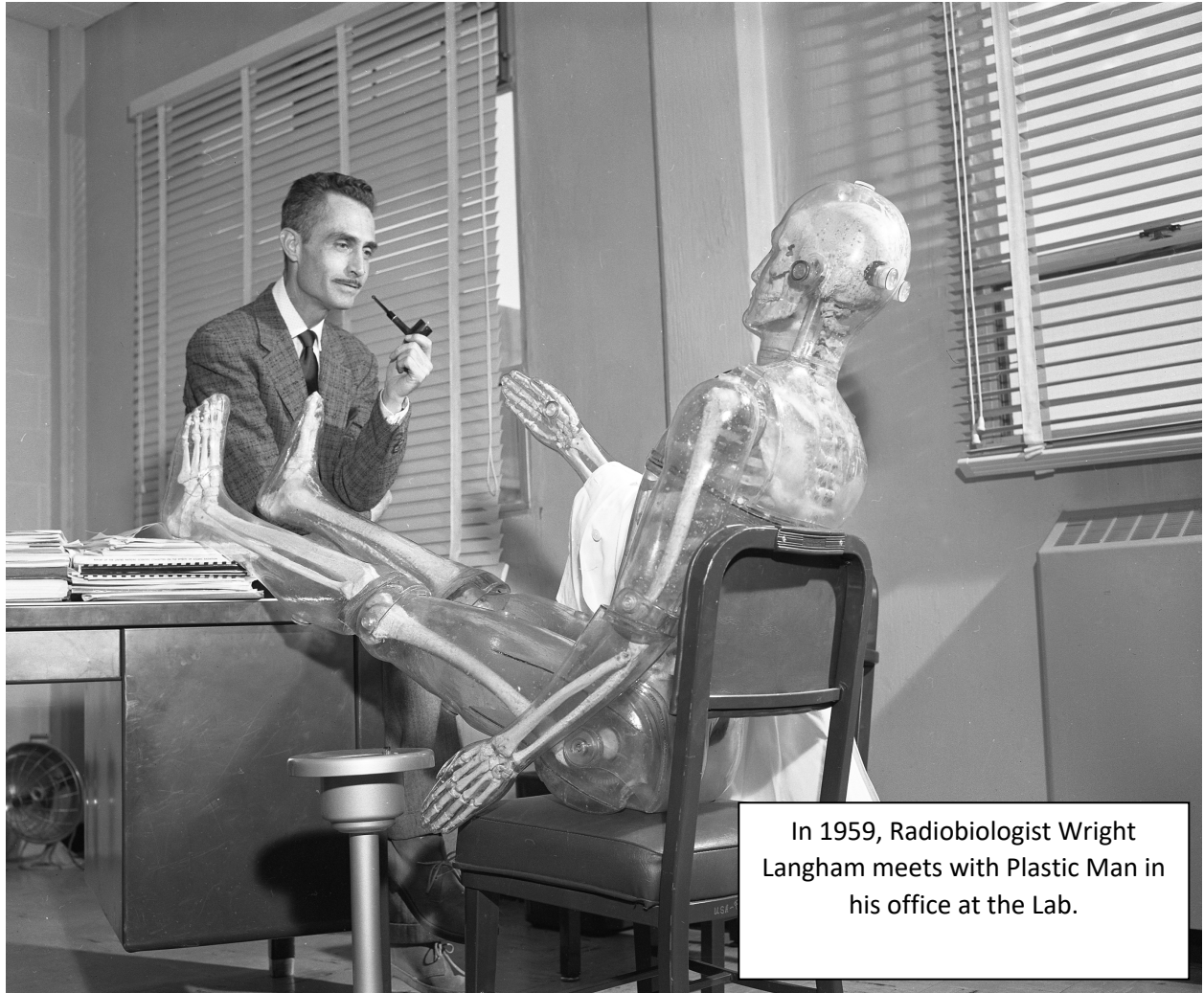
Running experiments like this using Plastic Man kept humans safer.

### **How life-like was he?**

There were actually two variations of Plastic Man. Both had hard plastic exteriors, but one of the models encased a real human skeleton.

They also had movable joints and simulated organs, such as a liver, a spleen, kidneys, lungs and a thyroid. Although Plastic Man in its entirety was used in experiments, much of the data collected were from research conducted inside on these replicated organs.

In time, technology advanced and Plastic Man was able to retire from the Lab. He found a new home in 1964 as a display at the Laboratory's science museum, and is sometimes displayed today in the Bradbury Science Museum in downtown Los Alamos.



In 1959, Radiobiologist Wright Langham meets with Plastic Man in his office at the Lab.



Plastic Man is inspected before the Rover  
Kiwi A-3 test in 1960. The project  
developed a nuclear-thermal rocket and  
Plastic Man helped test radiation effects on  
humans.







Radiobiologist Wright Langham, left, introduces Plastic Man to then-Laboratory Director Norris Bradbury. Plastic Man was used in the '50 and '60s to simulate human radiation exposure.

Additional Photos:







